

Senate File 302 - Introduced

SENATE FILE 302
BY COMMITTEE ON TRANSPORTATION

(SUCCESSOR TO SSB 1128)

A BILL FOR

1 An Act relating to motor vehicles operated by an automated
2 driving system, and making penalties applicable.
3 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF IOWA:

1 Section 1. NEW SECTION. 321.514 Definitions.

2 As used in this section and sections 321.515 through
3 321.519, unless the context otherwise requires:

4 1. "*Automated driving system*" means the hardware and
5 software collectively capable of performing all dynamic driving
6 tasks on a sustained basis, regardless of whether the system is
7 limited to a specific operational design domain, if any.

8 2. "*Conventional human driver*" means a natural person
9 who manually controls the in-vehicle accelerating, braking,
10 steering, and transmission gear selection input devices in
11 order to operate a motor vehicle.

12 3. "*Driverless-capable vehicle*" means a system-equipped
13 vehicle capable of performing all dynamic driving tasks within
14 the automated driving system's operational design domain, if
15 any, including but not limited to achievement of a minimal risk
16 condition without intervention or supervision by a conventional
17 human driver.

18 4. "*Dynamic driving task*" means any real-time operational
19 and tactical function required to operate a motor vehicle on
20 a highway in traffic within an automated driving system's
21 specific operational design domain, if any. "*Dynamic driving*
22 *task*" does not include any strategic function such as trip
23 scheduling or the selection of destinations and waypoints.

24 5. "*Minimal risk condition*" means a reasonably safe state
25 to which an automated driving system brings a system-equipped
26 vehicle upon experiencing a performance-relevant failure of the
27 system that renders the system unable to perform any dynamic
28 driving task, including but not limited to bringing the vehicle
29 to a complete stop and activating the vehicle's hazard lamps.

30 6. "*On-demand driverless-capable vehicle network*" means a
31 transportation service network that uses a software application
32 or other digital means to dispatch driverless-capable vehicles
33 for the purposes of transporting persons or goods, including
34 transportation for hire as defined in section 325A.1, and
35 public transportation.

1 7. "*Operational design domain*" means a set of constraints
2 used to define the domain under which an automated driving
3 system is designed to properly operate, including but not
4 limited to types of highways, speed ranges, environmental
5 conditions such as weather or time of day, and other
6 constraints.

7 8. "*System-equipped vehicle*" means a motor vehicle equipped
8 with an automated driving system.

9 Sec. 2. NEW SECTION. 321.515 **Operation.**

10 1. A driverless-capable vehicle may operate on the public
11 highways of this state without a conventional human driver
12 physically present in the vehicle, if the vehicle meets all of
13 the following conditions:

14 a. The vehicle is capable of achieving a minimal risk
15 condition if a malfunction of the automated driving system
16 occurs that renders the system unable to perform any dynamic
17 driving task within the system's intended operational design
18 domain, if any.

19 b. While in driverless operation, the vehicle is capable of
20 operating in compliance with the applicable traffic and motor
21 vehicle safety laws and regulations of this state that govern
22 the performance of dynamic driving tasks, unless an exemption
23 has been granted to the vehicle by the department.

24 c. The vehicle has been certified by the vehicle's
25 manufacturer to be in compliance with all applicable federal
26 motor vehicle safety standards, except to the extent an
27 exemption has been granted for the vehicle under applicable
28 federal law or by the national highway traffic safety
29 administration.

30 2. a. The operation of a system-equipped vehicle capable
31 of performing all dynamic driving tasks within the automated
32 driving system's operational design domain on the public
33 highways of this state while a conventional human driver is
34 present in the vehicle shall be lawful. Such operation is
35 subject to the provisions of this chapter, including the

1 requirement that the conventional human driver possess a
2 valid driver's license pursuant to section 321.174. The
3 conventional human driver shall operate the system-equipped
4 vehicle according to the manufacturer's requirements and
5 specifications, and shall regain manual control of the vehicle
6 when prompted by the automated driving system.

7 *b.* An automated driving system, while engaged, shall be
8 designed to operate within the system's operational design
9 domain in compliance with the applicable traffic and motor
10 vehicle safety laws and regulations of this state that govern
11 the performance of dynamic driving tasks, unless an exemption
12 has been granted to the vehicle by the department.

13 3. Except as provided in this section, the motor vehicle
14 laws of this state shall not be construed to require a
15 conventional human driver to operate a driverless-capable
16 vehicle that is being operated by an automated driving system.
17 The automated driving system, while engaged, shall be deemed
18 to fulfill any physical acts required of a conventional human
19 driver to perform dynamic driving tasks.

20 Sec. 3. NEW SECTION. 321.516 Insurance.

21 Before a system-equipped vehicle is allowed to operate on
22 the public highways of this state, the owner shall submit to
23 the department proof of financial liability coverage for the
24 vehicle in a manner and form determined by the department.

25 Sec. 4. NEW SECTION. 321.517 Accidents.

26 In the event of an accident in which a system-equipped
27 vehicle is involved, the vehicle shall remain at the scene of
28 the accident and the operation of the vehicle shall otherwise
29 comply with sections 321.261 through 321.273 where applicable
30 and to the extent possible, and the vehicle's owner or a person
31 on behalf of the vehicle's owner shall promptly report the
32 accident to law enforcement authorities. If a system-equipped
33 vehicle fails to remain at the scene of an accident or the
34 operation of the vehicle fails to otherwise comply with
35 sections 321.261 through 321.273 where applicable and to the

1 extent possible as required by this section, the vehicle's
2 failure shall be imputed to the vehicle's owner, and the
3 vehicle's owner may be charged and convicted of a violation of
4 sections 321.261 through 321.273, as applicable.

5 **Sec. 5. NEW SECTION. 321.518 On-demand driverless-capable**
6 **vehicle network.**

7 A person may operate an on-demand driverless-capable vehicle
8 network. An on-demand driverless-capable vehicle network may
9 be used to facilitate the transportation of persons or goods,
10 including transportation for hire as defined in section 325A.1,
11 and public transportation. An on-demand driverless-capable
12 vehicle network may connect passengers to driverless-capable
13 vehicles either exclusively or as part of a digital network
14 that also connects passengers to conventional human drivers
15 who provide transportation services, consistent with chapter
16 321N or any other applicable laws, in vehicles that are not
17 driverless-capable vehicles.

18 **Sec. 6. NEW SECTION. 321.519 Authority.**

19 1. Automated driving systems and system-equipped vehicles
20 shall be governed exclusively by sections 321.514 through
21 321.518, and this section. Automated driving systems and
22 system-equipped vehicles shall be regulated exclusively by the
23 department in accordance with sections 321.514 through 321.518.

24 2. A political subdivision of the state shall not impose
25 requirements, including but not limited to performance
26 standards, specific to the operation of system-equipped
27 vehicles, automated driving systems, or on-demand
28 driverless-capable vehicle networks that are in addition to
29 the requirements set forth under sections 321.514 through
30 321.518. A political subdivision of the state shall not
31 impose a tax on system-equipped vehicles, automated driving
32 systems, or on-demand driverless-capable vehicle networks
33 where such tax relates specifically to the operation of
34 system-equipped vehicles, automated driving systems, or
35 on-demand driverless-capable vehicle networks.

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EXPLANATION

The inclusion of this explanation does not constitute agreement with the explanation's substance by the members of the general assembly.

This bill relates to automated driving systems (ADS). OPERATION. The bill authorizes a driverless-capable vehicle to operate on the public highways without a conventional human driver physically present in the vehicle if the vehicle meets certain conditions. First, the vehicle must be capable of achieving a minimal risk condition if a malfunction of the ADS occurs that renders the ADS unable to perform any dynamic driving task within the ADS's intended operational design domain, if any. Second, while in driverless operation, the vehicle must be capable of operating in compliance with the applicable traffic and motor vehicle safety laws and regulations of this state that govern the performance of dynamic driving tasks, unless an exemption has been granted to the vehicle by the department of transportation (DOT). Third, the vehicle must be certified by the vehicle's manufacturer to be in compliance with all applicable federal motor vehicle safety standards, except to the extent an exemption has been granted for the vehicle under applicable federal law or by the national highway traffic safety administration.

The bill provides that the operation of a system-equipped vehicle capable of performing all dynamic driving tasks within the ADS's operational design domain on the public highways while a conventional human driver is present in the vehicle shall be lawful. Such operation is subject to the provisions of Code chapter 321, including the requirement that the conventional human driver possess a valid driver's license. The conventional human driver must operate the system-equipped vehicle according to the manufacturer's requirements and specifications, and must regain manual control of the vehicle when prompted by the ADS.

The bill provides that the motor vehicle laws of this state shall not be construed to require a conventional human driver

1 to operate a driverless-capable vehicle that is being operated
2 by an ADS. The ADS, while engaged, is deemed to fulfill
3 any physical acts required of a conventional human driver to
4 perform dynamic driving tasks.

5 INSURANCE. The bill requires, before a system-equipped
6 vehicle is allowed to operate on the public highways, that
7 the owner submit to the DOT proof of financial liability
8 coverage for the vehicle in a manner and form determined by the
9 DOT. Under Code chapter 321, "financial liability coverage"
10 means an owner's policy of liability insurance in the amounts
11 specified in Code section 321A.21, a bond filed with the
12 DOT, a certificate of deposit filed with the DOT, or a valid
13 certificate of self-insurance issued by the DOT.

14 ACCIDENTS. In the event of an accident in which a
15 system-equipped vehicle is involved, the bill requires
16 the vehicle to remain at the scene of the accident and the
17 operation of the vehicle to otherwise comply with Code sections
18 321.261 through 321.273 where applicable and to the extent
19 possible, and the vehicle's owner or a person on behalf
20 of the vehicle's owner to promptly report the accident to
21 law enforcement authorities. The bill provides that if a
22 system-equipped vehicle fails to remain at the scene of an
23 accident or the operation of the vehicle fails to otherwise
24 comply with Code sections 321.261 through 321.273 where
25 applicable and to the extent possible as required by the
26 bill, the vehicle's failure shall be imputed to the vehicle's
27 owner, and the vehicle's owner may be charged and convicted
28 of a violation of Code sections 321.261 through 321.273, as
29 applicable.

30 NETWORKS. The bill authorizes a person to operate
31 an on-demand driverless-capable vehicle network. An
32 on-demand driverless-capable vehicle network may be used to
33 facilitate the transportation of persons or goods, including
34 transportation for hire and public transportation. An
35 on-demand driverless-capable vehicle network may connect

1 passengers to driverless-capable vehicles either exclusively or
2 as part of a digital network that also connects passengers to
3 conventional human drivers who provide transportation services
4 in vehicles that are not driverless-capable vehicles.

5 AUTHORITY. The bill specifies that automated driving
6 systems and system-equipped vehicles shall be governed
7 exclusively by the bill and regulated exclusively by the DOT.

8 The bill prohibits a political subdivision of the state
9 from imposing requirements, including but not limited
10 to performance standards, specific to the operation of
11 system-equipped vehicles, ADSs, or on-demand driverless-capable
12 vehicle networks that are in addition to the requirements
13 set forth under the bill. The bill also prohibits a
14 political subdivision of the state from imposing a tax on
15 system-equipped vehicles, ADSs, or on-demand driverless-capable
16 vehicle networks where such tax relates specifically to the
17 operation of system-equipped vehicles, ADSs, or on-demand
18 driverless-capable vehicle networks.

19 PENALTIES. Under Code section 321.482, it is a simple
20 misdemeanor for a person to do an act forbidden or to fail
21 to perform an act required by Code chapter 321, unless a
22 penalty is otherwise specified by law. A simple misdemeanor is
23 punishable by confinement for no more than 30 days or a fine of
24 at least \$65 but not more than \$625 or by both.